

tive to roller **88**, so as to adjust the angle of descent of the plate **86** as well as the spacing to roller **88**. The rollers **88** may also be adjustable in vertical and/or horizontal directions relative to one another or the associated plates **86**. In FIG. **3**, slots **92** are provided which mount the roller at a predetermined position and allow adjustment therein. It should be recognized that the adjustment of the plates **86** and/or rollers **88** will allow a wide variety of products to be easily handled in machine **10**. It is also desirable to provide for adjustment between roller assemblies **84** to achieve different and desirable surface and texture characteristics. The rollers **88** are therefore preferably independently driven by separate motors **35**, which allows the speed of rotation of each to be separately controlled. To create desired surface characteristics, the rotational speeds of cooperating roller assemblies **84** may be different, and in the preferred embodiment may be rotated at speeds between 20–100 rpm. Of course, the invention is not to be limited to this embodiment, and the rollers could be driven by a common motor or not driven at all if desired. The ability to handle a wide variety of products is also achieved by an adaptable configuration of rollers **88** in the preferred embodiment. As previously mentioned, the rollers **88** may have an integral or separate outer surface **90** to engage product and create the desired surface and texture characteristics. A separate surface forming member provided on a base roller will give an operator flexibility in the types of treatments which can be achieved, and the outer surface could be selectively changed to accommodate different products and/or treatments. Additionally, the rollers **88** themselves could be made of different material to facilitate operation. For example, the roller **88** could be constructed as a hollow stainless steel roller, having a smooth or textured surface, which may for example be used in processing boneless chicken. Alternatively, the roller **88** could be formed as a pneumatic or inflatable roller if desired, which may be used for processing bone-in chicken as an example. A wide variety of configurations are therefore possible and are contemplated in the invention. Similarly, a stainless steel mesh belt may form the outer surface **90** or another type or configuration of material may be used as desired. Again, a wide variety of configurations are therefore possible and are contemplated in the invention.

The invention therefore provides increased dwell distance and time without compromising production capabilities of the coating machine **10**, and provides the distinct advantages as described. The coating process as achieved in the coating machine **10**, allows a heavier and thicker coating of breading or other material to be formed on the food products while allowing the coating material to set up on the food products so as to minimize any chance that the coating material will dislodge from the coated food products during coating or subsequent to the coating operation. The desirable “homestyle” or other surface characteristics and textures are also obtained in a flexible arrangement. The coating machine **10** has been found to be extremely advantageous for the use of flour type breading materials, but is also suitable for use with free flowing breading as well as possibly Japanese-style crumbs and other coating materials.

Although the invention has been described with reference to a particular preferred embodiment thereof, it should be recognized that various changes and modifications may be made without departing from the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. A coating machine for selectively disbursing a coating material onto a product passing therethrough, comprising,  
a frame defining a main product conveyor path having  
main conveyor for conveying product positioned

thereon along said main conveyor path, said main conveyor path having a product input end and a product discharge end,

- a coating dispensing system for dispensing a coating material onto at least said main conveyor path such that coating material is disbursed onto said products positioned on said main conveyor path;
  - at least one roller assembly positioned in spaced apart relationship adjacent said discharge end of said main conveyor path, said at least one roller assembly comprises a roller plate and a roller positioned adjacent one another and defining a space therebetween wherein product discharged from said main conveyor falls onto said roller plate and is directed to said space and is pressed between said plate and said roller;
  - a discharge conveyor path positioned adjacent said at least one roller assembly to accept products after passing through said space for discharge from said coating machine at said product discharge end.
2. The coating machine of claim **1**, wherein,  
said main product conveyor path is inclined within said frame such that the length of said main path is increased.
3. The coating machine of claim **1**, wherein,  
said main conveyor means is a pervious conveyor belt which is supported on an impervious pan over a portion of its length such that coating material dispensed thereon will form a bottom layer of coating material and said conveyor will carry said coating material along therewith as it travels in said frame.
4. The coating machine of claim **1**, further comprising,  
a series of said roller assemblies positioned in relationship with one another so as to cooperate with one another whereby product discharged from a said roller assembly is introduced to another of said roller assemblies and said space formed between said roller and said plate.
5. The coating machine of claim **4**, wherein,  
said series of roller assemblies are positioned with respect to one another such that the rollers of cooperating roller assemblies are positioned adjacent one another and in spaced apart relationship to define a space therebetween, wherein product introduced to a roller assembly from a cooperating assembly transfers product to said space defined between said rollers where said product is pressed between said adjacent rollers.
6. The coating machine of claim **1**, wherein,  
the position of said roller of said at least one roller assembly is adjustable relative to said plate.
7. The coating machine of claim **4** wherein, the position of said roller of said at least one roller assembly is adjustable relative to said roller of a cooperating assembly.
8. The coating machine of claim **1**, wherein,  
the position of said plate of said at least one roller assembly is adjustable relative to said roller.
9. The coating machine of claim **8**, wherein,  
the orientation of said plate is adjustable relative to said roller.
10. The coating machine of claim **1**, wherein,  
said roller includes an outer surface having a predetermined configuration for creating surface characteristics on product passing through said space.
11. The coating machine of claim **10**, wherein,  
said outer surface is a separate member selectively positioned on said roller to form said outer surface.